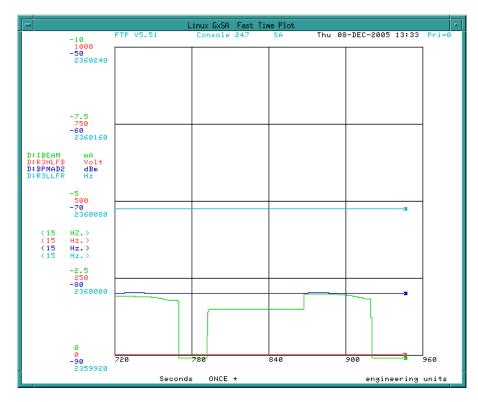
## 2005-11-29-Establishing Reverse Protons to the Debuncher

## 11-25-05:

## Starting from Stacking, we establish Reverse Protons to the Debuncher

- From the Pbar Annex Sequencer
  - Run the "Fast Recycler Start" aggregate
  - Run the "Fast Recycler Reverse Protons" aggregate
  - Run the "Fast Recycler Finish Reverse Protons" aggregate
- From the Pbar Sequencer
  - Run the "Reverse Protons to Debuncher" aggregate.
  - Stop before sending beam up AP2.
- Detune the DRF1 rotator cavities from P8 TUNESYS <19> and <20>.
  - $\circ$  % = 2, 3, 4, 5, 6, 7
  - For each cavity, repeat the following:
    - Set A:ALLOW% = 0 (DRF1-% allow heater setting)
    - Set DLENABC% = 0 (DRF1-% enable regulation setting)
    - Turn off D:R1L%RL (DRF1-% LLRF rotation level).
    - Do not turn off D:R1H%XC (DRF1-% high level status and control)
    - Set D:R1HT0% (DRF1-% heater setting) to desired amount.
      - DRF1-2 through DRF1-7 settings are currently: 50, 39, 65, 51, 52, 60.
- Start FTP Pbar #47



## FTP Pbar #47:

- Green trace is the intensity of Debuncher beam.
  - □ 1 turn, 7 bunches we were getting ~2ma
  - □ 1 turn, 35 bunches we were getting ~14ma
- Yellow trace is the Debuncher BPM intensity. To ensure good readbacks, we want better than -70dB. We found that it was better to be more picky and only accept better than -60dB.
- Red trace is the DRF3 amplitude. When we bunch the beam this should come up to around 400V.

- up to around 400V.
- Cyan trace is the DRF3 frequency. At the revolution frequency of the Debuncher = 590018Hz, with DRF3 h=4, we get 2360072.
- We have two choices for running beam
  - Have the crew chief put \$16/\$2D events in the TLG. Preferred when injecting continuosly.
  - Do one shots. Preferred when circulating beam in the Debuncher.
- From the Pbar Sequencer
  - Run the "Deb Vert aperture scan rev p" aggregate
    - Start Pbar FTP #57
    - D44 -> User -> gollwitz -> DebVertAdm
  - Run the "Deb Hor aperture scan rev p" aggregate
    - Start Pbar FTP #56
    - D44 -> User -> gollwitz ->DebHorAdmit